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**From:** Wirick, Holiday [wirick.holiday@epa.gov]  
**Sent:** 5/19/2022 4:38:47 PM  
**To:** Laidlaw, Tina [Laidlaw.Tina@epa.gov]; Fish, Tonya (she/her) [Fish.Tonya@epa.gov]; Moon, Dave [Moon.Dave@epa.gov]  
**CC:** Todd, Andrew [Todd.Andrew@epa.gov]; Pierce, Maggie (she/her) [Pierce.Maggie@epa.gov]; Parrish, George [Parrish.George@epa.gov]  
**Subject:** Fw: FYI - Info re: deriving SCR values  
**Attachments:** Memo on 2019 secondary contact RWQC submission from MA.docx

Sorry - meant to copy the team on this message to Maggie.

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**From:** Wirick, Holiday <wirick.holiday@epa.gov>  
**Sent:** Thursday, May 19, 2022 10:36 AM  
**To:** Pierce, Maggie (she/her) <Pierce.Maggie@epa.gov>  
**Subject:** Fw: FYI - Info re: deriving SCR values

Hi Maggie, following is information about deriving secondary contact recreation values that I shared with George, and below that with Pete Wax, in response to his inquiry about a number to support wading which may be useful in your work with Fort Belnap.

Thanks - I hope the information is helpful.

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**From:** Wirick, Holiday <wirick.holiday@epa.gov>  
**Sent:** Wednesday, March 23, 2022 4:21 PM  
**To:** Parrish, George <Parrish.George@epa.gov>  
**Subject:** FYI - Info re: deriving SCR values

Hi George, per our conversation a couple weeks ago, I've been meaning to send you this info about deriving SCR values in response to a question I received from Pete Wax about finding a number to support wading.

Here's a link to the white paper that was just published in January with the equation for deriving SCR values using water ingestion rates associated with water rec activities.

(<https://www.epa.gov/system/files/documents/2022-01/rec-criteria-white-paper-final.pdf>)

According to Mario and Erica, no one has used the equation yet to derive SCR values, but Mario shared the attached memo with me which evaluates MA's SCR submittal.

Thanks,  
Holly

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**From:** Wax, Peter N. <pwax@nd.gov>  
**Sent:** Monday, February 28, 2022 1:26 PM  
**To:** Wirick, Holiday <wirick.holiday@epa.gov>  
**Subject:** RE: Your question re: deriving SCR values

This might be handy.

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**From:** Wirick, Holiday <wirick.holiday@epa.gov>  
**Sent:** Monday, February 28, 2022 12:44 PM  
**To:** Wax, Peter N. <pwax@nd.gov>  
**Subject:** Your question re: deriving SCR values

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Hi Pete, I heard back from Mario on my question about whether any states have used the equation from the 2022 white paper yet to derive secondary contact recreation criteria. Per Mario, no one has used the equation yet, but the attached memo, which I think is a very helpful example, was sent to Massachusetts.

In a nutshell, based on my quick perusal of the memo, Table 2 on p. 9 lists relevant water ingestion rates from studies that have been conducted on water rec activities. MA classifies wading as a primary contact rec category, similar to swimming (per Table 2 would be an ingestion magnitude of 6 mL/hour).

As stated in the memo, "because the epi studies forming the basis of EPA's 2012 Recreational Water Quality Criteria (RWQC) describe exposure as swimming or wading, it's reasonable to use the magnitude of incidental water ingestion associated with activities described as swimming or wading as an appropriate value for the numerator of the multiplier ratio in Equation 6."

On p. 10 of the memo, "applying Equation 6 using those ingestion magnitude estimates results in the following RWQC for SCR:

*E. coli* in freshwater:

$$GM = 126 \times \frac{6.0 \text{ mL/hr}}{2.2 \text{ mL/hr}} = 344 \text{ } E. coli \text{ colony-forming units}$$

$$STV = 410 \times \frac{6.0 \text{ mL/hr}}{2.2 \text{ mL/hr}} = 1,118 \text{ cfu}$$

I hope this information helps. We can talk about this when you have time and Mario says Gary Russo, who is the lead on this issue, would be happy to look at some numbers.

Thanks! Talk with you soon.

Holly Wirick  
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**From:** Sengco, Mario <Sengco.Mario@epa.gov>  
**Sent:** Monday, February 28, 2022 8:44 AM

**To:** Wirick, Holiday <[wirick.holiday@epa.gov](mailto:wirick.holiday@epa.gov)>

**Subject:** RE: Question re: SCR #s

Hi, Holly

According to Erica, no one has done it yet, but we provided a writeup to R4 for GA and to R1 for MA (at least the latter was shared with the state). Attached is what we sent MA, and they considered it but ultimately didn't pick it up this triennial. We are hoping they'll do it next time around. We haven't heard the latest re: GA in a while, but our analysis for them was similar and we were hoping they'd pick it up sometime in the nearish future. Gary Russo in our office would be happy to look at some numbers for us if need be, but Erica thinks the numbers would land where this MA paper landed, from the looks of the respective SCR definitions.

Hope this helps. We'd be happy to help further; just let us know.

Mario

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**From:** Wirick, Holiday <[wirick.holiday@epa.gov](mailto:wirick.holiday@epa.gov)>

**Sent:** Friday, February 25, 2022 2:04 PM

**To:** Sengco, Mario <[Sengco.Mario@epa.gov](mailto:Sengco.Mario@epa.gov)>

**Subject:** Question re: SCR #s

Hi Mario, I received the question below from Pete Wax at NDDEQ explaining that he's been asked to come up with secondary contact rec criteria to support wading.

I sent Pete the link to the white paper that was just published last month (good stuff) with the equation for deriving SCR values (<https://www.epa.gov/system/files/documents/2022-01/rec-criteria-white-paper-final.pdf>)

My question to you is do you know whether any states have used the equation yet to derive SCR criteria? I was hoping to reach out to a regional WQS coordinator or someone at OW who may be willing to talk through the process with Pete to help ND move forward to derive SCR values.

As always, thanks so very much for your help!

Holly

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**From:** Wax, Peter N. <[pwax@nd.gov](mailto:pwax@nd.gov)>

**Sent:** Tuesday, February 22, 2022 1:50 PM

**To:** Wirick, Holiday <[wirick.holiday@epa.gov](mailto:wirick.holiday@epa.gov)>

**Subject:** Call this week

Dear Holly:

Just an FYI, that I have been requested to look into finding a number to support wadding.

- d. Class III streams. The quality of the waters in this class shall be suitable for agricultural and industrial uses. Streams in this class generally have low average flows with prolonged periods of no flow. During periods of no flow, they are of limited value for recreation and fish and aquatic biota. The quality of these waters must be maintained to protect secondary contact recreation uses (e.g., wading), fish and aquatic biota, and wildlife uses.

Peter

Peter N. Wax  
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